

REMARKS

This Reply is responsive to an Office Action in this case mailed on September 20, 2005. In the Office Action, the Examiner rejected claims 1-8 under 35 U.S.C. § 101, as directed to non-statutory subject matter; rejected claims 1-8 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention; objected to claims 12-15 under 37 CFR 1.75(c) as being in improper multiple dependent form; and rejected claims 9-11 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,471,872 to Kitaevich et al. (Kitaevich).

By this Reply, claims 1-15 have been amended and claims 16-17 have been added to cover additional features of the present invention. Claims 1-17 are currently pending in the above-captioned patent application. Prompt consideration of this Reply and allowance of the application are earnestly requested.

New claim 16 recites, among other things, “determining a value of an ultrafiltration rate of the liquid component through the membrane; detecting a transmembrane pressure value across the membrane; [and] calculating a value of the actual permeability as the ratio of the value of the ultrafiltration rate to the transmembrane pressure value.” New claim 17 recites, sub-steps of the “transmembrane pressure value detection step” recited in claim 16, including, among other things, “determining pressure values at an inlet and an outlet of the first compartment and determining pressure values at an inlet and an outlet of the second compartment” and “calculating the transmembrane pressure value as an average transmembrane value between the inlet transmembrane value and the outlet

transmembrane value.” Support for new claims 16 and 17 can be found in the specification, for example, at page 8, line 3 - page 10, line 15.

At the outset, Applicants respectfully note that the Examiner’s rejections of claims 1-8 under 35 U.S.C. § 101, as allegedly being directed to non-statutory subject matter, are moot in light of the amendment of these claims. Amended claims 1-8 are directed to processes or methods and do not overlap two statutory categories. Accordingly, Applicants respectfully note that the Examiner’s rejections of claims 1-8 under 35 U.S.C. § 112, second paragraph, are also moot in light of the amendment of these claims. As noted above, amended claim 1 is directed to a method, not a device and a method, and thus is not indefinite. Furthermore, the Examiner’s objections to claims 12-15 under 37 CFR 1.75(c), as being in improper multiple dependent form, are moot in light of the amendment of these claims to remove improper multiple dependencies. Therefore, Applicants respectfully request that the Examiner withdraw the rejections and objections of claims 1-8 and 12-15 on these bases.

Applicants respectfully traverse the Examiner’s rejection of claims 9-11 under 35 U.S.C. § 102(b) as being anticipated by Kitaevich. In order to properly anticipate Applicants’ claimed invention under 35 U.S.C. § 102(b), each and every element of the claim in issue must be found, either expressly described or under principles of inherency, in a single prior art reference. Furthermore, “[t]he identical invention must be shown in as complete detail as is contained in the ...claim.” See M.P.E.P. § 2131 (8th Ed., Aug. 2001), quoting *Richardson v. Suzuki Motor Co.*, 868 F.2d 1126, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989). Finally, “[t]he elements must arranged as required by the claim.” M.P.E.P. § 2131 (8th ed. 2001), p. 2100-69.

The Examiner asserts that Kitaevich “discloses a dialysis system with a dialyzing filter...a blood circuit...with pump 16m inlet and outlet connections to the filter, a dialysate circuit with pumps 60, 66, connected to the filter, various detectors, a controller or calculator 12, and a display 13 that generates a display of the measured and calculated parameters.” (Office Action at 3.) More specifically, Kitaevich teaches that “[d]uring the hemofiltration operation, one or more of the various patient parameters will be monitored continuously and the controller will, at the selection of the operator, be responsive to selected parameter data supplied to the controller.” (Col. 9, lines 36-40.) Further, the controller taught by Kitaevich may “receive, evaluate and respond to the selected patient parameter data by generating appropriate responsive control signals by which the infusate, drained fluid and blood pumping rates are controlled to achieve the desired amount of fluid removal.” (Col. 5, lines 45-49.)

Kitaevich fails to teach, however, “a first calculator for calculating a filtration factor as a function of the value of the first and second parameters” and “a first controller for controlling the flow of the liquid component through the membrane or the inlet flow of the liquid to be filtered as a function of the filtration factor,” as recited in amended claim 9. (Emphasis added.) Moreover, Kitaevich does not disclose the calculation of a filtration factor that is a function of the value of a first parameter correlated with the liquid flow through the membrane and the value of a second parameter being at least one selected in the group comprising: hematocrit, hemoglobin, blood viscosity, blood electrical conductivity, and blood density. Kitaevich also does not teach a controller of liquid flow based on the calculated filtration factor, as recited in amended claim 9.

Therefore, because all elements of amended claim 9 are not taught by Kitaevich, the rejection of this claim should be reversed and the claim allowed. Accordingly, claims 10-15 should be allowed at least due to their dependence from amended claim 9.

Applicants also respectfully submit that new claim 16 is allowable over Kitaevich. Kitaevich fails to teach a method for controlling a dialysis machine comprising at least the steps of: "determining a value of an ultrafiltration rate of the liquid component through the membrane," "detecting a transmembrane pressure value across the membrane," "calculating a value of the actual permeability as the ratio of the value of the ultrafiltration rate to the transmembrane pressure value," "checking whether the actual permeability value satisfies a respective predetermined relation with respect to one or more threshold values," "generating a signal indicating the result of the checking step," as recited in new claim 16.

Accordingly, because all elements of new claim 16 are not taught by Kitaevich, this claim should be allowed over Kitaevich. Accordingly, claim 17 should be allowed at least due to its dependence from new claim 16.

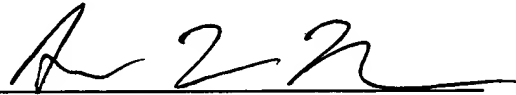
In view of the foregoing amendments and remarks, Applicant respectfully requests reconsideration and reexamination of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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